

REMARKS

Claim Rejections

The Examiner has rejected claims 1, 4-10, 12-17 and 21-22 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,994,069 to Ritchart et al. in view of U.S. Patent No. 5,797,953 to Tekulve. The Examiner has also rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Ritchart et al. in view of Tekulve in further view of U.S. Patent No. 5,122,136 to Guglielmi et al. The Examiner has also rejected claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Ritchart et al. in view of Tekulve and Guglielmi et al. in further view of U.S. Patent No. 5,669,931 to Kupiecki et al. The Examiner has also rejected claims 11 and 18-20 under 35 U.S.C. § 103(a) as being unpatentable over Ritchart et al. in view of Tekulve and in further view of Kupiecki et al.

Applicants have carefully considered the Examiner's comments. However, Applicants respectfully submit that the prior art of record does not disclose all of the limitations of Applicants' claims, and Applicants' claims would not be readily apparent from the prior art. Therefore, Applicants respectfully submit that the claims are allowable.

In particular, the Examiner has argued that Ritchart et al. discloses all of the limitations of Applicants' independent claims 1, 19 and 20 except for forming the thrombus (claims 1, 19 and 20), which the Examiner argues is disclosed by Tekulve, and the specific shapes of the front and back ends (claims 19 and 20), which the Examiner argues are disclosed in Kupiecki et al. However, Applicants respectfully submit that Ritchart et al. does not disclose all of the remaining limitations of claims 1, 19 and 20. Specifically, claims 1, 19 and 20 require that the wire body has a section that is "substantially straight in [a] predetermined unloaded shape" and that "a length of said section [is] larger than a diameter" of a vessel or an aneurysm ("six times said diameter" in claim 20). Claims 1, 19 and 20 further require that the "section of said wire body [is] substantially in said predetermined unloaded shape within said catheter" ("said catheter thereby loading said wire body into a substantially straight condition" in claim 20). As shown in Figure 1 of Applicants' specification, the section 4 is substantially

straight in its predetermined unloaded shape. (Page 11, lines 6-7). The complex curved shape that the section 4 eventually takes in the body vessel or aneurysm only occurs because the normally straight section 4 is column loaded against the walls of the vessel or aneurysm to frictionally lock the section in the vessel or aneurysm. (Page 15, line 29 to page 17, line 13).

By contrast, none of the embodiments in Ritchart et al. discloses a wire body that is substantially straight in a predetermined unloaded shape where the wire body is column loaded to frictionally lock the wire body. In Figures 2A and 3A, the wire body of Ritchart et al. is shown in a “stretched condition.” (Col. 3, line 63 to col. 4, line 5). In fact, the relaxed condition of these wire bodies is shown in Figures 2C and 3B. As clearly shown in Figures 2C and 3B, the relaxed condition of the wire bodies has an irregular, random shape—not a substantially straight shape. Therefore, neither of these embodiments satisfy Applicants’ claim limitations that the wire body has a section that is substantially straight in a predetermined unloaded shape and that the length of the section is larger than the diameter of the vessel or aneurysm. Furthermore, the claims require that the section be substantially in the predetermined unloaded shape within the catheter. However, the embodiments of Figures 2A and 3A of Ritchart et al. are stretched in a loaded condition inside of the catheter to prevent the wires from returning to their relaxed helical shape until after the wires are released from the catheter. (Col. 8, lines 39-46).

In another embodiment, Ritchart et al. states that “[a]lternatively, the wire may be supplied in a straight rigidified form, such as described for wire 34 above.” (Col. 8, lines 46-48). This embodiment refers to the wire shown in Figures 4A-4B. (Col. 5, line 62 to col. 6, line 5). However, this embodiment does not disclose Applicants’ claim limitations either. In the embodiment of Figures 4A-4B, a water-soluble material 36 coats the inner wall region of the wire. (Col. 5, lines 63-66). The water-soluble material is rigid and forces the naturally helical wire into a straight configuration so that it can be inserted into the catheter. (Col. 5, lines 63-66; col. 6, lines 2-5; col. 8, lines 46-51). Thus, like the embodiments of Figures 2A and 3A, the embodiment of Figures 4A-4B is in a loaded condition inside of the catheter. The only difference between the embodiments of Figures 2A and 3A and Figures 4A-4B is that a catheter restrains the wire in Figures

2A and 3A, and the rigid material 36 restrains the wire in Figures 4A-4B. Unlike the claimed invention which requires the wire body section to be substantially straight in a predetermined unloaded shape, all of the embodiments in Ritchart et al. have a helically-shaped unloaded condition.

The text of Ritchart et al. that the Examiner has cited confirms that the wire body in Ritchart et al. has an unloaded shape that is helical and random—not straight. For example, Ritchart et al. states that “[w]ith continued release of the wire from the catheter, the irregularities in the wire winding cause wire folding toward a space-filling, ball-like mass . . .” (Column 8, lines 59-61). Ritchart et al. further states that “the wire in all cases adopts a randomly coiled, space-filling conformation when released into the vessel.” (Column 9, lines 8-10). Ritchart et al. also explains that “the axial constraint is accommodated by irregularities in the helical winding which bias the wire in seemingly random directions as it is released from the catheter. Note that the random, space-filling conformation within a vessel does not necessarily correspond to the initial preformed relaxed condition of the wire, nor is it necessarily the condition which would be adopted if the same wire were released into the vessel a second time.” (Column 9, lines 13-21). Therefore, Ritchart et al. does not disclose all the limitations that the Examiner has argued Ritchart et al. discloses. Accordingly, Applicants’ independent claims are allowable.

In addition to the limitations that are missing from Ritchart et al., the prior art of record also fails to disclose the combination of additional limitations of dependent claims 2-18 and 21-22. Because each of these claims incorporate all of the limitations of allowable claims 1, 19 and 20, from which they depend, claims 2-18 and 21-22 are also allowable. Therefore, any further arguments that could be made at this time in support of the additional limitations of Applicants’ dependent claims would be superfluous and is unnecessary. *In re Fine*, 837 F.2d 1071, 1076 (Fed. Cir. 1988); *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1555 (Fed. Cir. 1983).

Conclusion

It is respectfully submitted that none of the prior art of record discloses all of the limitations of Applicants' claims. In particular, Ritchart et al. does not disclose a wire body that has a section that is substantially straight in a predetermined unloaded shape with a length that is larger than the diameter of the vessel or aneurysm where the section is substantially in the predetermined unloaded shape within the catheter. Therefore, Applicants' claims are allowable. Accordingly, Applicants request reconsideration and allowance of the application.

Respectfully submitted,

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